Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_\_

Mystery Cells

Case #25436

A journey into the differences between plant and animal cells

**Confidential**

On the next page, please carefully draw what you see in the microscopes. Don’t forget to label each drawing with the slide number and a prediction as to whether it is a sample of plant or animal cells. Use the highlighter tool for more variety of shades.

Slide # \_\_\_\_\_ Slide # \_\_\_\_\_\_

Prediction: Prediction:

Slide # \_\_\_\_\_ Slide # \_\_\_\_\_

Prediction: Prediction:

Slide # \_\_\_\_\_ Slide # \_\_\_\_\_

Prediction: Prediction:

* Please respond to the following using complete sentences:
  1. Do all cells look alike?
  2. Give some examples of how they are different.
  3. Why might some cells be different from others?

Plant: Onion

Observations:

Animal: Human

Observations:

Use what you observed of plant and animal cells to fill out the table below. You are either changing or supporting your original predictions (page 2) based on the new information you have gathered.

|  |  |  |  |
| --- | --- | --- | --- |
| Slide # | Original  Claim (Prediction) | New Claim | Evidence (Why?) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Let’s review what you have observed about plant and animal cells.

|  |  |  |
| --- | --- | --- |
|  | **Plant Cells** | **Animal Cells** |
| **Shape**  **(of individual cells)** |  |  |
| **Organization**  **(of multiple cells)** |  |  |
| **Unique**  **Structures** |  |  |

Plant cells have 3 main parts that animal cells do NOT.

* Please read/look over the following pages in the textbook to complete the table.
  + **Cell Wall** – pg. 68
  + **Chloroplast** – pg. 72
  + **Large Central Vacuole (LCV)** – pg. 74 (HINT: Look in the table at the bottom of the page)

|  |  |
| --- | --- |
| **Cell Part** | **Function/Job** |
| **Cell Wall** |  |
| **Large Central Vacuole (LCV)** |  |
| **Chloroplast** |  |

Cell wall and cell membrane are easy to confuse, but after our class activity, you should be able to fill in this chart to keep them straight.

|  |  |  |
| --- | --- | --- |
|  | Cell  Wall | Cell  Membrane |
| **Location**  **(plant, animal, or both)** |  |  |
| **Structure (what it’s like)** |  |  |
| **Function (what it does)** |  |  |

Mystery Cells

Observations:

Next, submit your findings in a letter to the police department for formal review. You should explain whether the mystery cells recovered from the body are from a plant or an animal species and explain how you know. Make your claim AND support it with evidence!!!

\*Remember, this is a professional document, so spelling and grammar should be considered!\*